FACULTÉ DES SCIENCES

LABORATOIRE DEGÉNÉTIQUE

13. RUE PIERRE CURIE, PARIS Vº

Tél. : ODÉon 16-40

September 28, 1953

Prof. J. LEDERBERG Dept of Genetics University of Wisconsin Madison, Wisconsin U.S.A.

Dear Josh,

We were glad to have your letter and happy to know that incidents, if any, belong to the past.

I meant to answer earlier your questions concerning the idea of inducing little-to-big transformations with suspensions of mitochondria, but postponed writing you because I learned that Rubbo himself was coming to see me. I had a good discussion with him (indidentally, he makes a very excellent impression I) and promised him to write to you a letter preliminary to your discussions with him when he reaches Madison.

The idea of inducing little-to-big transformations is, of course, not new, but we never did about it except a few unsystematic and unsuccessful attempts. In my opinion, the use of mitochondria should lead to success provided one knew how to get them into the cells. I consider it a priori improbable that placing littles in a suspension of mitochondria will do the trick in view of the thickness of the yeast cell wall. I think that what one should try is microinjection. This has never been tried thus far, because, again, of the thickness of the cell wall: yeast cells explode when they are hurt with a needle. I was planning to try this year injection into zygotes because they seem to be much softer and more thin-walled than vegetative cells. I told all this to Rubbo and hope that I made it clear to him - and I want it to be clear to you - that I would be very greatly interested in the results, whoever gets them, and that I therefore well be happy to help by supplying either information, or strains, or both.

Rubbo told me of his general plans and objectives of the trip he is starting on, and from this point of view it appears to me more adequate for him to undertake work not on the above subject, but rather on the other subject which you mentioned as a possibility in your letter to him: the action of acridines on bacteria. It seems to me that here is a subject which on the one hand is equally interesting, and which, on the other, will offer him an opportunity to work with K-12 and familiarize himself with genetic problems and techniques (which is the major aim of his trip).

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Rubbo himself is inclined to look at the situation in a similar way.

Do let me know what you decide and what you do, and do remember that my strains are at your disposal.

With kindest regards to both of you, from both of us,

Do ever /son

Boris EPHRUSSI

langrol,

but a number of people told me that they thought the terministry paper should not have been published, him, to rough on you. So naturally, I wented to hear from you about it. There is, by the way, not a line of it meant seriously; it had to be written very uniously to sport nature; we thought I was excluded from signing in view of my being precisely brased! The speculationis about the cognac are not to far wrong. The note was born during a delightful wahend man Iscarno, where we were host to various of the authors while occupying the home of temporal's father. Valpolicello was the strongest daink - a light italian wine. It was the beauty of the sport trigh up in the vertical alopes of vingards, what was no precisely to the join do vive - Regards to you toth, A.